



SPANISH-INFLECTED · MODERN · MAIN · SUNDAY ROAST · LARGE-FORMAT

# Pork Belly Roast — Low-and-Slow Oven with Crackling Finish

Pork belly dry-brined 24 hours, roasted at 150 °C for three hours until the meat is pull-apart tender, then finished at 240 °C for twenty minutes until the skin blisters into the most satisfying crackling in any kitchen. The oven's answer to kamado secreto — different register, equal drama.

Protein Pork Belly (skin-on, 1.5-2 kg)

Serves 6 (generous portions)

Difficulty Intermediate

Active 25 min total (across phases)

Total 24 h dry brine + 3 h 30 min oven + 20 min rest ≈ 28 h

## THE STORY

### The Crackling Question

---

Pork belly is two dishes in one: the meat underneath, which wants slow, gentle heat for the fat to render and the collagen to dissolve into gelatin, and the skin on top, which wants a blast of high heat at the end to blister into proper *chicharrón*-style crackling. The classical Spanish approach cooks them together on the kamado with careful temperature management. The Umami oven approach separates the phases cleanly: three hours at 150 °C renders and tenderizes without touching the skin, then twenty minutes at 240 °C blisters the skin without overcooking the meat. This is the chuletón technique (UMAMI-7 #4) applied to pork belly: decouple the two problems, optimize each separately, bring them together at service.

The non-negotiable prep is the dry brine. 24 hours uncovered in the fridge with 1 percent salt by weight does three things: seasons the meat throughout, dries the skin so it can crackle properly (wet skin steams instead of blistering), and begins gentle enzymatic tenderization.

Skip this step and the pork is under-seasoned and the crackling is uneven. It is the difference between a great pork belly and an ordinary one.

Serving is family-style: the whole roast comes to the table on a wooden board, the skin cracking audibly under the knife, the meat pulling apart with a fork. Pair with a simple salad of escarole and apple, crusty bread for the rendered fat, and a bottle of aged Rioja or a Tempranillo-based Spanish red. It is the Sunday meal Spanish families serve when they want to flex without needing to go to a restaurant.

#### AT A GLANCE


## Specs



<b>CUT</b> Pork belly, skin-on, 1.5–2 kg	<b>DRY BRINE</b> 1% salt by weight · 24 h uncovered in fridge	<b>PHASE 1 OVEN</b> 150 °C convection · 3 h	<b>PHASE 2 OVEN</b> 240 °C · 15–20 min crackling blast
<b>DIFFICULTY</b> Intermediate ●●●○○	<b>ACTIVE TIME</b> 25 min across phases	<b>TOTAL TIME</b> ~28 h	<b>SERVES</b> 6 generous
<b>PAIRING</b> Aged Rioja or Tempranillo Spanish red	<b>CROSS-METHOD</b> Oven complement to UMAMI-6 #1 kamado secreto		

#### UMAMI ADAPTATION

## What Changed & Why

Spanish pork-belly tradition includes kamado versions (slow-smoked low and slow) and oven versions (roasted at medium heat for long periods). The adaptation uses the two-phase reverse-sear logic from UMAMI-7 #4 Chuletón: separate the gentle-heat interior phase from

the aggressive-heat surface phase. The  tier upgrades to Ibérico pork belly from verified suppliers and adds a pimentón-fennel rub layer that infuses the meat during the long phase.

CHANGE	ORIGINAL	UMAMI VERSION	WHY
<b>TECH</b>	Single-temperature oven roast (180 °C for 2.5 h)	Two-phase: 150 °C for 3 h + 240 °C for 20 min	Low-temperature phase fully renders fat and dissolves collagen without crisping skin prematurely; high-temperature blast crisps skin without overcooking interior. Both phases optimized separately.
<b>ADD</b>	—	Score the skin in a diamond pattern 5 mm deep (through fat, not into meat)	Scoring opens the skin's surface area, allowing fat to render during Phase 1 and moisture to escape during Phase 2 — both prerequisites for proper crackling.
<b>ELEV</b>	—	Pimentón + fennel seed rub bloomed in EVOO, brushed on meat side only	Pimentón + fennel is a classical Spanish pork combination. Applied only to the meat side, the rub seasons the pork without interfering with skin crackling.
<b>SUB</b>	Standard grocery pork belly + basic salt brine	 grocery pork belly skin-on + kosher salt dry brine ·  Ibérico pork belly from Meat N' Bone (Pablo's Miami supplier) + Maldon + Pimentón de la Vera bloom	Ibérico pork belly is a different product — deeper porcine flavor from acorn-fed pigs; fat renders differently (softer, more integrated). Worth the upgrade for dinner-party tier.

## INGREDIENTS

# What You Need

### ● Everyday

#### The Pork

- 1 × 1.5–2 kg pork belly, skin-on, bone-out — from a good butcher; ask for one from the rib end (more meat, less pure fat) OR from the flank end (more fat, more dramatic crackling)

#### The Dry Brine (T-24 h)

- 15–20 g kosher salt (1% of meat weight)
- 1 tsp black pepper, freshly cracked

#### The Rub (Phase 1)

- 2 tbsp EVOO
- 1 tsp pimentón de la Vera dulce
- 1 tsp fennel seeds, toasted and lightly crushed
- 2 cloves garlic, microplaned
- Pinch of cumin (optional)

#### Substitution Notes

- *No skin-on pork belly?* Skin-off works but loses the crackling finish — still a great braise but a different dish.
- *Fennel seed unavailable?* Coriander seed is a functional substitute; flavor shifts slightly.

### ● No Limits

#### The Pork — Ibérico

- 1 × 1.5–2 kg **Ibérico pork belly** from Meat N' Bone (Miami, Pablo ✓) or Despaña Brand Foods — acorn-fed Spanish black pig, markedly different profile from standard US pork

#### The Brine + Rub — Spanish DO

- Maldon salt at 1% weight
- **Pimentón de la Vera dulce DO** (Pablo priority per MEMORY.md)
- Whole fennel seeds from a good spice shop
- Las Pedroñeras purple garlic
- Arbequina EVOO

## EQUIPMENT

### Your Kit

---

- Large roasting pan with rack

---

- Sharp boning knife or scoring blade (for skin scoring)

---

- Kitchen scale

---

- Instant-read probe thermometer

---

- Large cutting board (grooved)

---

- Sharp chef's knife (for carving the crackling)

## MISE EN PLACE

### Before You Start

---

- T-24 h: Pat pork belly dry. Score skin in diamond pattern (2 cm squares, 5 mm deep — through fat only, not into meat). Salt rub across all surfaces. Place on wire rack over sheet pan, uncovered in fridge 24 h.

---

- T-30 min: Remove pork from fridge. Let temper at room temperature. Pat skin dry one more time.

---

- T-20 min: Preheat oven to 150 °C convection. Mix rub: EVOO + pimentón + fennel + garlic.

---

- T-5 min: Brush rub onto meat side ONLY — avoid skin. Place pork on roasting rack, skin-side UP.

## MAKE-AHEAD

### Timeline

---

- T-24 h — Score + salt + dry brine**  
Diamond-score the skin. Salt all surfaces. Uncovered rack in fridge, 24 h.
  
- T-30 min — Temper + preheat**  
Pork to room temp. Oven to 150 °C convection.

● **T=0 – Phase 1 begin**

Pork onto rack, skin-side UP. Probe in thickest meat section (avoid skin). Into oven 150 °C.

● **T+2 h – Check rendering**

Fat should be rendering visibly. Meat internal ~70 °C. Skin dry and leathery (that's correct — will crackle Phase 2).

● **T+3 h – End Phase 1**

Meat internal 88–90 °C. Pork is tender. Skin is firm, dry, NOT crackled yet. Remove from oven.

● **T+3:00 – Oven ramp**

Crank oven to 240 °C (or max). 10 min preheat.

● **T+3:10 – Phase 2 begin**

Pork back in at 240 °C. Position near top heating element if possible.

● **T+3:25–3:30 – Crackling check**

Skin should be blistered, golden-brown, bubbled into proper crackling. If pale or flat: 3 more minutes.

● **T+3:30 – Rest**

Out of oven. Loose foil tent. Rest 20 min. Crackling stays crispy; interior equalizes.

● **T+3:50 – Carve + serve**

Score through crackling with heavy knife. Slice 2 cm thick portions through skin and meat together.

## METHOD

# The Cook

### 1 Score + Dry Brine (24 h Before)

1. Pat the pork belly dry thoroughly with paper towels. Both sides, especially the skin.
2. **Score the skin:** using a sharp boning knife or a dedicated scoring blade, cut a diamond pattern across the skin. Diamonds should be roughly 2 cm on a side. Cut 5 mm deep — through the skin and fat layer but NOT into the meat. If you cut into the meat, juices will release during roasting and prevent proper crackling.
3. Rub 15 to 20 g kosher salt (1% of the meat's weight) across all surfaces — skin, meat, sides. Use your fingers to work salt into the diamond scores.
4. Crack black pepper over the meat side (NOT the skin).
5. Place on a wire rack set over a rimmed sheet pan. **Do not cover.**
6. Refrigerate 24 hours. The skin will dry significantly — this is essential for proper crackling.

#### WHY THIS WORKS

24-hour uncovered dry brine is the most important preparation step for great pork belly. Three mechanisms: (1) salt penetrates the meat throughout, seasoning it rather than just the surface, (2) surface moisture evaporates from the skin — wet skin steams instead of crackling during Phase 2, (3) endogenous enzymes begin gentle tenderization of the meat. The same technique is documented in UMAMI-6 #4 Whole Leg of Lamb and UMAMI-7 #4 Chuletón as the 1% dry-brine ratio. Reference: Protein Encyclopedia §Dry Brining; UMAMI-7 #4 Chuletón §24-Hour Dry Brine.

## 2 Phase 1 — Low and Slow (150 °C × 3 h)

1. Preheat oven to **150 °C convection**. Position rack in middle of oven.
2. Remove pork from fridge. Let temper 30 min at room temp.
3. Pat skin one more time with paper towels.
4. Brush the meat side only with the pimentón–fennel rub (2 tbsp EVOO + 1 tsp pimentón + 1 tsp crushed fennel + microplaned garlic). **Do not brush the skin** — oil on skin interferes with crackling.
5. Place pork on roasting rack, skin–side UP, in a large roasting pan.
6. Insert probe thermometer into thickest meat section, avoiding the skin and fat layers.
7. Roast 3 hours at 150 °C convection. Do not open the oven during this phase.
8. **Target at end of Phase 1:** meat internal temperature 88 to 90 °C, pork tender and pullable, skin dry and leathery (NOT yet crackled — that's Phase 2).

### WHY THIS WORKS

150 °C is above the collagen–dissolution threshold (65 to 70 °C) and below the aggressive Maillard zone. Over 3 hours, the fat fully renders out of the belly's layers, and the collagen dissolves into gelatin, producing the pull-apart texture. The skin stays dry and leathery at this temperature — no browning yet. Convection ensures even temperature distribution around the full surface.

Reference: Food Science Core §Collagen to Gelatin; Protein Encyclopedia §Pork Belly.

### 3 Phase 2 — High Blast Crackling (240 °C × 15–20 min)

1. Remove pork from oven. Crank oven to **240 °C** (or maximum setting, convection off or on — either works at this temperature).
2. While oven ramps up (10 min), let pork rest on counter. **Do not tent or cover** — skin needs to stay dry.
3. Once oven is at 240 °C: return pork, skin-side UP. Position as close to the top heating element as the oven allows.
4. Roast 15 to 20 minutes. **Watch closely from 12 min onward.**
5. **Crackling cues:** skin will blister, puff up in diamond sections, turn deep golden-brown, and become audibly crisp when tapped with tongs.
6. **Pull when:** skin is uniformly blistered and deep golden. Burn risk is real — 3 minutes of inattention can turn crackling into charcoal.
7. If parts of the skin refuse to crackle: a blowtorch across those sections for 30 seconds delivers the final blister.

#### WHY THIS WORKS

240 °C rapidly evaporates the remaining moisture in the skin's proteins and fats, causing the surface to blister as trapped water flashes to steam. The scoring pattern (from Phase 1 prep) allows each diamond to blister independently. The target is uniform golden-brown without burnt black patches — which requires attention during the last 8 to 10 minutes. Reference: Food Science Core §Maillard Threshold; Sauces and Condiments §High-Heat Finishing.

### 4 Rest + Carve + Serve

1. Transfer to a grooved cutting board.
2. Tent LOOSELY with foil — not pressed down on the crackling.
3. Rest 20 minutes. Interior equalizes; crackling stays crispy.
4. Carving: use a heavy chef's knife. Press straight down through the crackling with the knife's tip first, then through the meat — a smooth pressing motion rather than a sawing motion.
5. Slice 2 cm thick portions through skin and meat together. Each portion should have a section of intact crackling on top of pull-apart meat.
6. Serve family-style on the cutting board OR pre-plate each portion. Crusty bread alongside for the rendered pan fat (do not discard — it's flavored pork fat, excellent for future roasted potatoes).

## QUICK REFERENCE

# Timing Cheat Sheet

STEP	TIME	CUE
Score skin + salt + fridge 24 h uncovered	T-24 h · 10 min active	Skin tacky-dry after 24 h
Temper 30 min + preheat 150 °C convection	T-30 · 5 min active	Room-temp pork, oven stable
Brush rub on meat side; pork skin-up in pan	T-5 · 5 min	Skin stays dry
Phase 1 — 3 h at 150 °C convection	T=0 to T+3 h · passive	Meat internal 88–90 °C; skin leathery
Oven to 240 °C (10 min ramp)	T+3:00 · 10 min	Max oven temp
Phase 2 — 15–20 min crackling	T+3:10 · passive with watching	Skin blistered, golden, audibly crisp
Rest loose foil tent 20 min	T+3:30 · passive	Tent LOOSE — don't crush crackling
Carve through skin + meat; serve	T+3:50 · 5 min	2 cm portions, each with crackling top

## TROUBLESHOOTING

# Emergency Protocols

### SKIN DIDN'T CRACKLE — STAYED SOFT AFTER PHASE 2

Usually means either (a) dry brine was skipped or shortened (skin was still wet going in), (b) rub oil got on skin and prevented blistering, or (c) oven didn't reach true 240 °C. For this batch: use a blowtorch across the skin surface for 30 to 60 seconds — finishes the crackling manually. Next batch: 24-hour dry brine mandatory, keep oil off skin, verify oven with external thermometer.

 **SKIN BURNED BEFORE PHASE 2 TIME ENDED**

Oven ran too hot or pork too close to heating element. For this batch: scrape off burned surface with a knife; remaining crackling may be salvageable. Next batch: drop target to 220 °C and watch from 10 min onward; position lower in oven.

 **MEAT IS DRY / STRINGY AFTER PHASE 1**

Cooked too long or oven was too hot in Phase 1 (probably above 160 °C). The interior dried out. Serve with extra rendered fat drizzled over slices. Next batch: verify oven temperature; pull at probe 85 °C if running hot; extend dry brine to 36 h for more moisture retention.

 **PAN IS FULL OF SMOKE DURING PHASE 2**

Pork fat pooled in the pan is smoking. Pull the pan out briefly, carefully pour off most of the fat into a heat-safe container (save — flavored fat), return pork to oven. Next batch: add 200 ml water to the pan bottom at the start of Phase 2 — prevents smoking by keeping pan base cool.

 **CRACKLING DIDN'T PUFF IN DIAMOND PATTERN — IT'S FLAT**

Scoring wasn't deep enough or the skin didn't dry fully. Not recoverable for this batch. Next batch: score deeper (5 mm, confident cuts), ensure 24-hour uncovered dry brine, position pork directly under top heating element during Phase 2.

## Technique Notes

---

### ● The Two-Phase Roast — Decoupling Interior and Surface

ROASTING TECHNIQUE · UNIVERSAL · APPLIES TO PORK BELLY, PORCHETTA, PORK SHOULDER WITH SKIN, DUCK

The two-phase oven roast — low temperature for interior rendering + high temperature for surface crackling — is a modern technique that solves the same problem as the reverse sear for thick steaks (UMAMI-7 #4 Chuletón). The mechanism: low heat (150 °C) fully renders fat and dissolves collagen without driving the skin past its crackling window; high heat (240 °C) then blisters the skin in a short focused blast. The two problems (meat tenderness, skin crackling) fight each other under a single-temperature roast — single-temp always compromises one or the other. Separating them produces pork belly that is pull-apart tender with dramatic crackling simultaneously. Applies to: pork belly, pork shoulder with skin-on, suckling pig sections, porchetta, even some duck preparations. Reference: UMAMI-7 #4 Chuletón §Reverse Sear; Cross-Technique Workflows §Two-Phase Roasting.

### ● The 1% Dry Brine — Universal Ratio

BRINING TECHNIQUE · UNIVERSAL · APPLIES TO ALL DRY-BRINED MEATS

Salt at 1 percent of meat weight is the Goldilocks ratio for dry-brining, documented in UMAMI-6 #4 Whole Leg of Lamb, UMAMI-7 #4 Chuletón, and now UMAMI-7 #5 Pork Belly. The mechanism transfers: salt penetrates meat over 12 to 24 hours, improving seasoning throughout and increasing water-holding capacity; surface moisture evaporates, setting up better Maillard and crackling; endogenous enzymes tenderize gently. The 1 percent number is precise — 0.5 percent is under-seasoned; 1.5 percent begins to cure the surface (acceptable for cured meats, wrong for roasts). For a 1.5 kg pork belly: 15 g salt, full stop. Reference: Protein Encyclopedia §Dry Brining; UMAMI-7 #4 Chuletón §24-Hour Dry Brine.

## ● Skin Scoring — Geometry for Crackling

KNIFE TECHNIQUE · UNIVERSAL · APPLIES TO ALL SKIN-ON ROASTS

Scoring the skin in a diamond or parallel-line pattern before roasting does two things: opens surface area for fat to render out during the low phase, and creates discrete sections that can blister independently during the high phase. Scoring depth matters: 5 mm through skin and fat, NOT into meat — cutting into meat releases juices that prevent crackling. Pattern geometry: 2 cm diamonds are the traditional spacing; tighter than 1.5 cm produces crackling that fragments too much, wider than 3 cm produces fewer but larger crackling sections (either works — personal preference). The skin must be dry before scoring (24-hour dry brine handles this) and the scoring knife must be very sharp — a dull knife compresses the skin rather than cutting cleanly. Applies to: pork belly, pork shoulder with skin, suckling pig, crispy-skin duck. Reference: Knife Skills §Specialty Cuts; Protein Encyclopedia §Skin Preparation.

## ● No Limits: Ibérico Pork Belly (Substitutes Base Meat)

INGREDIENT QUALITY · SUBSTITUTES PROTEIN BASE

Ibérico pork — specifically from Pata Negra (black-footed) Iberian pigs raised in Spain's dehesa (oak pastures) — is a different product from standard US pork. The flavor profile: nuttier, more umami, deeper-porcine, often compared to well-aged beef for depth. The fat renders differently: softer, more integrated with the meat, with a wider texture window during cooking. For Pablo specifically: Meat N' Bone in Miami is an established verified supplier carrying Ibérico products, and Despaña Brand Foods imports Ibérico pork belly seasonally. Price is 2 to 3 times standard pork belly; impact is substantial on a dish where the meat is 80 percent of the experience. Reference: Protein Encyclopedia §Ibérico Pork; Pantry and Staples §Spanish Pork Products.

## ● No Limits: Pimentón-Fennel Rub (Extends Seasoning)

FLAVOR INFUSION · EXTENDS SEASONING PHASE

Pimentón de la Vera + fennel seed is a classical Spanish pork combination. The fennel's anise-like aromatic oils bloom in warm EVOO alongside the pimentón's capsanthin and smoke compounds. Applied only to the meat side (never the skin — oil interferes with crackling), the rub seasons the meat throughout the 3-hour low-temperature phase without affecting crackling development. Toasting the fennel seeds briefly (30 sec dry pan) before crushing releases their aromatic compounds. This technique applies broadly to Spanish pork preparations: porchetta, cochinillo segments, pork shoulder braises, even sausage-making. Reference: *Pantry and Staples* §Spanish Pork Seasonings; *Sauces and Condiments* §Spice Blooms.

## ● No Limits: Water Bath for Smokeless Phase 2 (Extends Equipment Setup)

EQUIPMENT SETUP · PREVENTS SMOKE ISSUES

Phase 2's 240 °C heat on a fat-filled roasting pan produces smoke if the rendered fat reaches its smoke point. Solution: add 200 ml water to the pan bottom at the start of Phase 2. The water prevents the pan base from exceeding 100 °C (water boiling point) and keeps the fat from reaching its smoke point. Minor reduction in crackling speed (the water-filled pan radiates slightly less heat upward) is more than compensated by a smoke-free oven and cleaner subsequent cooking. Also prevents fat from burning onto the pan surface, making cleanup much easier. This technique applies broadly to fat-dripping roasts at high temperature (prime rib final-crust phase, duck legs in the last blast, porchetta high-heat finish). Reference: *Dinner Party Orchestration* §Smoke Prevention; *Kamado Mastery* §Fire Management (analogous principle).

## PAIRING

# What to Drink

---

### Wine — Spanish Red

Rioja Reserva (5–7 years aged) or Ribera del Duero Reserva

*Tempranillo-based Spanish reds with 5 to 7 years of bottle age have the right balance for pork belly: softened tannins handle the fat richness, red-fruit character complements pork's sweetness, and developed oak notes match the pimentón-fennel rub. Reserva level (not Gran Reserva — too mature for this register). Serve at 14 to 16 Celsius.*

### Wine — Adventurous

Bierzo Mencía or young Priorat (Garnacha–Carignan)

*Mencía from Bierzo has a smoky-mineral profile that mirrors the pimentón in the rub and complements the skin's caramelized crackling. Young Priorat is the heavier alternative — dense, mineral-rich, handles the pork fat at a different register. Both at 13 to 14 percent alcohol.*

### Digestif

Orujo blanco or aged Spanish brandy (Cardenal Mendoza)

*Post-pork digestif. Orujo blanco (clear Galician grape-must spirit) cuts through the remaining richness; aged brandy extends the oak-and-dried-fruit notes from the wine. Small pour, room-temperature, after the meal rather than during.*

## CONTEXT

# Menu Ideas

---

### This as Main Course

Sunday dinner deployment. Pork belly carved family-style on a wooden board at the table, with crusty bread for the pan fat, a simple escarole-apple salad, and roasted potatoes finished in the pork's rendered fat. Rioja Reserva. 6 guests, 28-hour total timeline (dry brine the night before).

### Cross-Method Companion

Pair with UMAMI-6 #1 Ibérico Secreto on the kamado for a two-cut pork feast — the secreto's fast direct-heat sear contrasts the belly's slow-roasted tender-crackling architecture. Serve both with the same sauces (mojo verde, alioli quemado, salsa brava).

### Downstream — Tacos / Sandwiches

Leftover pork belly (day 2) chopped rough becomes exceptional taco filling, Cubano sandwich filling, or banh mi filling. The crackling, chopped small, adds textural crunch. The rendered pork fat from the pan becomes the cooking fat for eggs or tortillas.

### Downstream — Sides Program

Escarole-apple salad (sherry vinaigrette + thinly-sliced Granny Smith apple + toasted walnuts + shaved Manchego) + roasted fingerling potatoes in reserved pork fat + simple braised greens. The richness demands acid and bitter counterpoints; avoid other rich sides.

### Dinner-Party Arc

Opener: Gambas al Ajillo (UMAMI-4 #4). Salad course: escarole-apple. Main: this pork belly. Cheese: Manchego + Cabrales. Dessert: Ensaimada Mallorquina (UMAMI-10 #5). Rioja Reserva throughout.

## YOUR NOTES

# Cook Log

---

### Session Notes

Date: \_\_\_\_\_ · Serves: \_\_\_\_\_ · Rating: \_\_ / 5

*Use this space to record what you changed, what worked, and what you'd do differently next time. Your future self will thank you.*

